JET Meeting Minutes August 18, 2015

Participants

Grover Browning Internet2 Gcbrowni@iu.edu

Richard Carlson DOE/SC Richard.carlson@science.doe.gov

Bobby Cates NASA/Ames bcates@mail.arc.nasa.gov
Vince Dattoria DOE/SC <u>vince.dattoria@science.doe.gov</u>
Bill Fink NASA bill@wizard.sci.gsfc.nasa.gov

Mark Foster NASA/Ames mark.foster@nasa.gov

Andy Germain NASA/GSFC Andrew.M.Germain@nasa.gov

will.habeck@nasa.gov Will Habeck NASA/Ames Michael Lambert 3ROX lambert@psc.edu Paul Lang NASA paul.lang@nasa.gov epl@sover.net Paul Love NCO Grant Miller NCO miller@nitrd.gov george.d.uhl@nasa.gov George Uhl NASA/GSFC

Action Items

1. Grant Miller will solicit JET member comments on topics they would like to see the JET address and their degree of interest in those topics

Proceedings

This meeting of the JET was chaired by Vince Dattoria of DOE.

AI: Grant Miller will solicit JET member comments on topics they would like to see the JET address and their degree of interest in those topics.

Network Roundtable

ESnet: Nick Buraglio via email
Nothing new to report

Internet2: Grover Browning

Internet2 has implemented a new layer 2 node in Louisville. Internet2 was hit by the fiber issues experienced in the San Francisco Bay area. Internet2 has augmented their DC to Atlanta connectivity with an 100G express lane. In Atlanta there is Layer 1 connectivity at both Peachtree and Marietta. Peachtree also has Layer 2 & Layer 3 connectivity.

NASA Networking: Bobby Cates, Mark Foster

NASA is turning down its TIC at Equinox in Chicago. They are deploying a new TIC at JPL that will provide an interface to CENIC.

The Pacific Rim Platform (PRP) has received a small amount of funding form the NSF (PIs are Larry Smarr and Tom DeFanti) to promote normalization of DTN platforms. They are developing configuration guidelines that include perfSONAR boxes

and their placement. The objective is to provide consistent platforms for Big Data scientists moving data from one site to another. This is a pilot project that will continue.

NASA is implementing greater than 10G links and will be implementing onramps. They are cooperating with the PRP so that when the links are established they will be consistent with the PRP guidelines.

NASA reconfigured its networks for symmetric networking for all NASA centers for TIC support. In some cases the reconfiguration has resulted in slower traffic. All internal networking has been reconfigured. NASA is currently engineering its border equipment and preparing for TIC implementation. This applies to NASA corporate networking. NASA Mission networks are separate.

3ROX: Michael Lambert

Nothing new to report.

Exchange Point Roundtable

NASA Ames Exchange: Bobby Cates

DREN is planning to upgrade to 10G at Ames. This has not been completed yet. The Ames NGIX is expanding its presence and ports for the AIX in Sunnyvale to facilitate improved access.

StarLight Update: Joe Mambretti via email

The StarLight consortium is preparing to stage multiple international demonstrations for the GLIF annual meeting in Prague, Czech Republic, including those based on the StarLight SDX (funded by the NSF's International Research Network Connections – IRNC - program), and multiple 100 Gbps and SDX demonstrations at SC15 in Austin Texas (approximately 15 separate 100 Gbps SC15 demonstrations are being discussed currently – for the SC14 conference, StarLight directly supported 14 sets of 100 Gbps demonstrations). Preliminary requirements and descriptions have been forwarded to the SCinet WAN group.

WIX: Grover Browning

Nothing new to report

MANLAN: Grover Browning

MANLAN added new 100G ports as part of a consolidation designed to accommodate new customers.

Singapore: Grover Browning

Nothing new to report

JET Tasking for next year: Grant Miller

Discussion among the JET members identified that the JET recommendation to the LSN for tasking next year should include:

- Track technologies: IPv6, SDN, perfSONAR,
- Track TIC deployments to the extent we're able
- Continuation of the JET Big Data Tasking: SCxx Demonstrations

- Workshops:
 - o SDN Research Priorities Workshop
 - o SDN Wireless Edge Workshop
 - SDN Applications Workshop
- Potential JET meetings outside NSF
 - o 3rd week of Nov at SC15 (Austin)
 - o Mid-May 2016 at Internet2 Global Summit (Chicago)
 - o Late Sep 2016 for TechX

Internet2 Soft Failures: Grover Browning

There was a 37 minute outage in Atlanta in June related to the soft failures. Internet2 is currently in discussions with Brocade which is developing a test platform equivalent in scale and scope to the Internet2 network to test for soft failures. They will be ramping it up to near 100% (vs. 35% for Internet2's network) to trigger the soft failures problem. They are emulating the Internet2 configurations and SDN environment as much as possible. The soft failures seem to be a firmware or hardware problem not associated with OpenFlow SDN.

Juniper soft failures seen with multicast were corrected with a software update.

Meetings of Interest:

Meetings of interest	•
September 21-23	CANS2015, Chengdu, China
September 28-30	ESCC, Austin, TX
Sep 29-Oct 1	Global Lambda Grid Workshop, Prague, Czech Republic
October 4-7	Technology Exchange, Cleveland, OH
October 5-7	NANOG65, Montreal, QC, Canada
October 8-9	ARIN 36, Montreal, QC, Canada
November 1-6	<u>IETF94</u> , Yokohama, Japan
November 10	Network Innovators Community Event, San Francisco, CA
November 15-20	SC15, Austin, TX
December 10-11	GENI Future Plans Workshop, Washington, DC
<u>2016</u>	

Next JET Meetings:

February 8-10

September 15 12:00-2:00, NSF October 20 12:00-2:00, NSF

November 17 1:30-3:30 CDT, Austin Convention Center, Austin TX

NANOG66, San Diego, CA

nb: This is concurrent with SC15.